

REMARKS

Applicants request favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1-28 were pending in the application and were rejected in the Office Action. By way of this amendment, Applicants have cancelled claims 5, 6, 16, and 25, without prejudice or disclaimer. In addition, Applicants have amended claims 1, 7, 14, 17, 18, 21, 26, and 27. Accordingly, claims 1-4, 7-15, 17-24, and 26-28 are respectfully resubmitted for further consideration.

1. Rejection of Claims 1-28

a. Rejections under 35 U.S.C. § 102

The Examiner rejected: (a) claims 1, 2, 5-10, 12-14, and 16-28 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,296,050 (“Meier”); (b) claims 1, 4-6, 8, 9, 12, 13, 21, and 24-26 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,413,741 (“Buchholz”); and (c) claims 1-3, 5, 8-10, 12-16, 21-25, and 28 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,511,051 (“Kessler”).

Applicants note that the range of “about 20° to about 50°” in each of claims 6, 17, and 26 was rejected in view of Meier and Buchholz but not Kessler. Accordingly, Applicants presume each of these dependent claims is allowable over Kessler. With respect to Meier and Buchholz, Applicants acknowledge that: (a) Meier teaches, at col. 3, lines 28-29, an angle of between 30° and 75° with respect to the horizontal; and (b) Buchholz arguably teaches, in the figures thereof, an angle of approximately 45° with respect to the horizontal. In addition, Applicants note that the narrower limitation of “about 26.6°” in claims 7, 18, and 27 was only rejected in view of Meier on the ground that the recitation of “about” was allegedly broad enough to reach Meier’s lower limit of 30°.

Without acquiescing to the propriety of the stated rejection of claims 7, 18, and 27, Applicants have opted to amend independent claims 1, 14, and 21 to recite that “the ridges of each of the sheets are oriented at an angle between about 20° and 30°, with respect to the horizontal,” as this range has proven to be advantageous. More specifically, an angle of 26.6° has been determined to be the most thermodynamically efficient when balancing the tradeoffs between (a) the pressure drop of the incoming air and the thermal capacity of the cooling media pack for maximum water cooling and (b) the operating costs of a tower in which the cooling media pack is used. In other words, with an increased pressure drop comes an increased horse power demand (and the energy costs associated therewith) to move the

same volume of air through the cooling media pack. The efficiency of a cooling tower using a cooling media pack of this nature remains acceptable but diminishes as the angle of the ridges is either lowered toward 20° or raised toward 30° with respect to the horizontal.

In light of the foregoing, the applicability of Meier is precluded by eliminating the “about” with respect to the upper end of the range, *i.e.*, 30°. Further, the applicability of Buchholz is also precluded because it is clear that the figures thereof do not teach or suggest an angle below 45°. As a result, none of Meier, Buchholz, and Kessler can be used to reject independent claims 1, 14, or 21, or any claim dependent thereon, under 35 U.S.C. § 102. Moreover, as claims 2-4 and 7-10, 12, and 13 depend from claim 1, as claims 15 and 17-20 depend from claim 14, and as claim 22-24 and 26-28 depend from claim 21, each of these dependent claims is also allowable over Meier, Buchholz, and Kessler, without regard to the other patentable limitations recited therein. Accordingly, Applicants respectfully request a withdrawal of the rejections of claims 1-4, 7-10, 12-15, 17-24, and 26-28 under § 102.

b. Rejection under 35 U.S.C. § 103

The Examiner rejected claim 11 under 35 U.S.C. § 103(a) as allegedly being obvious when considering Meier in view of a technical paper from the Cooling Tower Institute 1993 Annual Meeting (“CTI”). For the following reasons, Applicants respectfully traverse this rejection.

As previously discussed, Meier fails to teach or suggest each of the limitations of claim 1 (*i.e.*, the claim from which claim 11 depends) by failing to teach or suggest at least that “the ridges of each of the sheets are oriented at an angle between about 20° and 30°, with respect to the horizontal.” CTI fails to cure this deficiency.

As the combination of Meier and CTI fails to teach or suggest each of the limitations of claim 1, the combination can not be used to reject claim 1, or any claim dependent thereon, under 35 U.S.C. § 103(a). Moreover, as claim 11 depends from claim 1, this dependent claim is also allowable over the combination of Meier and CTI, without regard to the other patentable limitations recited therein. Accordingly, Applicants respectfully request a withdrawal of the rejection of claim 11 under § 103(a).

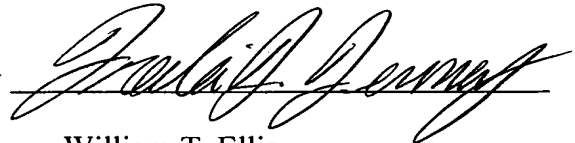
CONCLUSION

For the aforementioned reasons, claims 1-4, 7-15, 17-24, and 26-28 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

Date January 24, 2005

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HERewith, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HERewith, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.